

# The Role of Medicine in Aviation Safety

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THE JULY 1969 issue of CALIFORNIA MEDICINE (Vol. 111:55-56) carried an article entitled "The Role of Medicine in Aviation Safety." Since that initial statement, significant progress has been made and continues to be made. The following is a report of that progress.

## The California Aviation Safety Council

In April 1968, while participating as a panel member at a Congressional hearing in San Francisco on the subject of aviation safety at carrier airports, I was appalled at the lack of basic emergency equipment as well as the inadequacy of disaster planning for mass casualty care. Of the 37 major carrier airports in the United States, only two had a 24-hour emergency medical facility, and none had held a test exercise to demonstrate the adequacy of their disaster plans.

Further discussion showed that no coordinating body existed in the state of California to deal with the problem of aviation safety. To explore the need for such a body, two symposia on the medical aspects of aviation safety were held under California Medical Association auspices in 1968 and 1969, with approximately 100 people attending in each instance. Participants were carrier pilots, physician pilots, aviation medical examiners, cabin attendants, airport executives, airport fire and police components and personnel concerned with disaster planning on a governmental level. The enthusiastic interest of the participants in the medical aspects of aviation safety was sufficient to warrant the formation of a nongovern-

mental council on aviation safety. In February 1970, initial meetings were held with over 20 representatives of all aspects of aviation concerned with safety. In 1971 a constitution and bylaws were accepted, and the California Aviation Safety Council was formed. Active members were:

Air Line Pilots and Stewardesses Association  
California Medical Association  
California Fire Service  
Air Traffic Control Association  
Aircraft Pilots of Metropolitan Oakland  
Airport Executives Representatives  
The Ninety-Nines, Inc.  
The Sierra Academy School of Aviation Instruction  
California Crop Dusters Association  
California State Department of Aeronautics  
California Highway Patrol  
Office of Emergency Services  
Armed Forces Representatives  
California Peace Officers Association  
Federal Aviation Administration, Western Regional  
Representatives, Los Angeles

Changes and additions have been made in the foregoing according to interest expressed by these professional organizations.

## Purpose and Objectives

The purpose of this council is to promote, among its members, all measures devoted to passenger safety in aviation.

The most immediate deficiency found was the lack of adequate disaster planning in the event of mass casualties from aircraft accidents at carrier airports, and action to remedy this problem was our first objective.

## Carrier Airport Disaster Planning

Four years ago there were no significant disaster plans for mass casualty care at any carrier airport in California. One of the smaller carrier airports

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had held a test exercise. In May 1971, the first simulated mass casualty disaster test exercise was held at Oakland International Airport. Using 110 simulated casualties evacuated from an aircraft, supportive care was given in all phases from the collection site 500 feet upwind of the aircraft to transportation and care at the airport casualty collection center, with further air and ground transportation to the peripheral receiving hospitals for final definitive care. Problems in removal of casualties from a crowded aircraft cabin interior, the adequate means of casualty transportation to the airport stabilization casualty support facility, the jam-up of casualties because of poor "flow through" patterns at the facility, the proper coordination of transport, and the medical channel communications from disaster site to final hospital facility—all were present, well-illustrated and recorded. In August 1972, San Francisco International Airport held the second large test exercise. The same problems appeared, as well as some new ones. In October 1972, Los Angeles International Airport held the third large-scale test exercise, with some of the errors found in the two previous exercises appearing again.

Changes in plans and equipment used for disasters are being made at all three airports based on knowledge gained from actual demonstration of their worth. Members of the California Aviation Safety Council either directed or participated in all three exercises.

The most active support organization to the council has been the Air Line Pilots Association, represented by Captain John X. Stefanki, Vice Chairman of the Council. Captain Stefanki, through his national contacts, has urged other states to form similar councils. During the past year he has also acted as an advisor to many large carrier airports in the United States holding test exercises of their disaster plans.

#### *Emergency Medical Facilities*

It is the feeling of the California Aviation Safety Council that any carrier airport used by more than two million passengers annually and with at least three thousand employees should have an established emergency medical facility. At present, a study is underway toward classifying the staffing of airport emergency medical facilities based on the number of passengers using the airport and the number of employees. San Francisco International

Airport during the past year has established an excellent daytime emergency medical facility whose coverage will extend as necessary. The situation is different, however, in some other airports. It is interesting to note, for example, that Chicago's O'Hare International Airport, with one of the largest passenger and employee levels in the world, has no physician-staffed emergency medical facility.

#### *National and International Goals*

The California Aviation Safety Council has urged, through its members representing national organizations, the establishment of state councils of aviation safety. This would allow greater recognition of deficiencies in airport safety and would present a united front for their correction to both private and governmental interests.

On the international level, the California Aviation Safety Council has already established through its members, excellent liaison and exchange of knowledge on mutual safety and airport disaster medical care planning with South Adelaide (Australia), the airports of Paris, Athens Airport and Zurich International Airport.

#### **Current Interests**

The council has a decided interest in a number of subjects involving aviation safety and is exploring them in depth with presentations by specialists. The following is a list of these subjects.

1. Toxicity problems of spray materials used by crop dusting pilots.
2. The proper containerization, labeling and designation of appropriate neutralizing procedures for dangerous chemicals shipped by air.
3. The use of fire-resistant and nontoxic material for cabin decor and insulation.
4. Research in the field to establish more effective means of passenger cabin evacuation in event of crash landing on land or sea.
5. Instruction in advanced first aid training for cabin attendants and annual certification.
6. Revision and improvement of basic first aid equipment aboard carrier aircraft.
7. Inclusion of annual test exercises for demonstration of the adequacy of airport disaster planning as one of the requirements of airport certification by the Federal Aviation Administration.